

the zygospore, but their interpretation is not yet clear. The coenocentrum persists until quite late, and in the mature zygospore there are many nuclei of the same size as those in the mycelium.

Oil is diffused throughout the young zygospore, but later the oil collects in larger globules. In the mature zygospore there is usually only one globule of oil in the center, and the protoplasm, unmixed with oil, is pressed in a comparatively thin layer against the wall.

These observations are based on the examination of over 2000 zygospores, sectioned serially, and much more material must be examined before the detailed account with illustrations will appear.—FLORENCE A. McCORMICK, *The University of Chicago*.

A NEW CALIFORNIAN CEANOOTHUS

Ceanothus fresnensis Dudley, sp. nov.—Low shrub, forming rounded mats, 2–4 dm. high, with stout rigid branches, young twigs tomentose: leaves opposite, oblanceolate to (and more commonly) broadly obovate, entire or usually irregularly denticulate toward the summit, coriaceous and involute, densely tomentose on both surfaces when young, glabrate above in age; petioles 1 mm. long, tomentose: umbels terminating very short branchlets; fruiting pedicels 8–12 mm. long: capsule 6 mm. high, about 5 mm. broad; horns subterminal, erect or spreading, 1 mm. long; styles very slender, divided to below the middle.

In foliage aspect this species closely resembles some forms of *Ceanothus vestitus*, but that is an erect shrub, often a meter high or more, with much smaller capsules, which are broader than long, and which have minute dorsal horns. In fruit characters it is closely akin to *Ceanothus cuneatus*, from which it differs primarily in its low habit and small tomentose, denticulate leaves.

The name, *Ceanothus fresnensis*, was proposed by the late Professor W. R. DUDLEY some ten years ago for a plant collected by HALL and CHANDLER in the southern Sierra Nevada. The label on the type specimen, which is deposited in the Dudley Herbarium of Stanford University, reads as follows: "Stevenson Mts., Pine Ridge, Fresno County, California, altitude 5300 feet, only locality seen. Growing with *C. cordulatus*." HALL and CHANDLER 407, June 1900. During the past summer I found another small colony about 100 miles north of the original station, at Confidence, Tuolumne County, where it was growing on a dry ridge at an altitude of 4000 feet in open yellow pine woods associated with *C. cordulatus* (ABRAMS 4727).—LEROY ABRAMS, *The Dudley Herbarium, Stanford University*.